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Reviewer: Keisha Douglas

Timestamp: [year=2008; month=10; day=29; hr=10; min=3; sec=5; ms=356;]

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Application No: 10814850 Version No: 2.0

Input Set:

Output Set:

Started: 2008-10-01 10:25:34.271
Finished: 2008-10-01 10:25:35.247
Elapsed: 0 hr(s) 0 min(s) 0 sec(s) 976 ms
Total Warnings: 12
Total Errors: 0
No. of SeqIDs Defined: 14
Actual SeqID Count: 14

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SEQUENCE LISTING

<110> RAJAMOHAN, GOVINDAN
DAHIYA, MONIKA
PATHANIA, RANJANA
DIKSHIT, KANAK LATA

<120> A method for oxygen regulated production of recombinant
staphylokinase

<130> U 015118-6

<140> 10814850
<141> 2004-03-31

<150> US 60/459,439
<151> 2003-04-01

<160> 14

<170> PatentIn version 3.3

<210> 1
<211> 161
<212> DNA
<213> Artificial Sequence

<220>
<223> A nucleotide sequence of expression cassette OXY-1

<400> 1
gatcaagctt atcatcgata agcttacagg acgctggggtt aaaagtatatt gagttttgat 60
gtggattaag ttttgagagg tcaataagat tataatatgt gatgcttcac aattctgatg 120
tatggcaaaa ccataataat gaacttaagg aagacctcat g 161

<210> 2
<211> 582
<212> DNA
<213> Artificial Sequence

<220>
<223> A modified staphylokinase SAK-2 gene

<220>
<221> CDS
<222> (16)..(408)

<220>
<221> misc_feature
<222> (18)..(18)
<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (24)..(24)

<223> n is a, c, g, or t

<400> 2

gaacttaagc atatg gcn gga gcn tat aaa aag ggc gat gac gcg agt tat	51
Ala Gly Ala Tyr Lys Lys Gly Asp Asp Ala Ser Tyr	
1 5 10	
ttt gaa cca aca ggc ccg tat ttg atg gta aat gtg act gga gtt gat	99
Phe Glu Pro Thr Gly Pro Tyr Leu Met Val Asn Val Thr Gly Val Asp	
15 20 25	
ggg aaa gga aat gaa ttg cta tcc cct cat tat gtc gag ttt cct att	147
Gly Lys Gly Asn Glu Leu Leu Ser Pro His Tyr Val Glu Phe Pro Ile	
30 35 40	
aaa cct ggg act aca ctt aca aaa gaa aaa att gaa tac tat gtc gaa	195
Lys Pro Gly Thr Thr Leu Thr Lys Glu Lys Ile Glu Tyr Tyr Val Glu	
45 50 55 60	
tgg gca tta gat gcg aca gca tat aaa gag ttt aga gta gtt gaa tta	243
Trp Ala Leu Asp Ala Thr Ala Tyr Lys Glu Phe Arg Val Val Glu Leu	
65 70 75	
gat cca agc gca aag atc gaa gtc act tat tat gat aag aat aag aaa	291
Asp Pro Ser Ala Lys Ile Glu Val Thr Tyr Tyr Asp Lys Asn Lys Lys	
80 85 90	
aaa gaa gaa acg aag tct ttc cct ata aca gaa aaa ggt ttt gtt gtc	339
Lys Glu Glu Thr Lys Ser Phe Pro Ile Thr Glu Lys Gly Phe Val Val	
95 100 105	
cca gat tta tca gag cat att aaa aac cct gga ttc aac tta att aca	387
Pro Asp Leu Ser Glu His Ile Lys Asn Pro Gly Phe Asn Leu Ile Thr	
110 115 120	
aag gtt gtt ata gaa aag aaa taaaacaaaa tagttgttta ttatagaaag	438
Lys Val Val Ile Glu Lys Lys	
125 130	
taatgtcttg attgaatatg tgtagtgaaa ttatctttca tcaaattctc attcatgcac	498
gaatggttct gccccaccta atcagatatt acgtgactta tggggagaaa tcagtttggg	558
taaaagtgga ggatccagta gccg	582

<210> 3

<211> 131

<212> PRT

<213> Artificial Sequence

<220>

<223> A peptide sequence of modified staphylokinase SAK-2 gene

<400> 3

Ala Gly Ala Tyr Lys Lys Gly Asp Asp Ala Ser Tyr Phe Glu Pro Thr
1 5 10 15

Gly Pro Tyr Leu Met Val Asn Val Thr Gly Val Asp Gly Lys Gly Asn
20 25 30

Glu Leu Leu Ser Pro His Tyr Val Glu Phe Pro Ile Lys Pro Gly Thr
35 40 45

Thr Leu Thr Lys Glu Lys Ile Glu Tyr Tyr Val Glu Trp Ala Leu Asp
50 55 60

Ala Thr Ala Tyr Lys Glu Phe Arg Val Val Glu Leu Asp Pro Ser Ala
65 70 75 80

Lys Ile Glu Val Thr Tyr Tyr Asp Lys Asn Lys Lys Lys Glu Glu Thr
85 90 95

Lys Ser Phe Pro Ile Thr Glu Lys Gly Phe Val Val Pro Asp Leu Ser
100 105 110

Glu His Ile Lys Asn Pro Gly Phe Asn Leu Ile Thr Lys Val Val Ile
115 120 125

Glu Lys Lys
130

<210> 4

<211> 37

<212> DNA

<213> Artificial Sequence

<220>

<223> A primer SAK-1 for amplification

<400> 4

gattgtagcc atatgtcaag ttcattcgac aaaggaa

37

<210> 5

<211> 37

<212> DNA

<213> Artificial Sequence

<220>

<223> An oligonucleotide primer SAK-2

<400> 5
 cggctactgg atcctccact tttatccaaa ctgattt 37

<210> 6
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> An oligonucleotide primer SAK-3

<400> 6
 gaacttaagg aagatatata tatgtcaagt tcattcgaca aagga 45

<210> 7
 <211> 36
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> An oligonucleotide primer SAK-4

<400> 7
 gaacttaagc atatggctgg agcttataaa aagggc 36

<210> 8
 <211> 411
 <212> DNA
 <213> Staphylococcus aureus

<400> 8
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 acaggcccgt atttgatggt aaatgtgact ggagttgatg gtaaaggaaa tgaattgcta 120
 tcccctcatt atgtcgagtt tcctattaaa cctgggacta cacttacaaa agaaaaaatt 180
 gaatactatg tcgaatgggc attagatgcg acagcatata aagagtttag agtagttgaa 240
 ttagatccaa gcgcaaagat cgaagtcact tattatgata agaataagaa aaaagaagaa 300
 acgaagtctt tccctataac agaaaaaggt ttgtgtgtcc cagatttatc agagcatatt 360
 aaaaaccctg gattcaactt aattacaaag gttgttatag aaaagaaata a 411

<210> 9
 <211> 606
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> A staphylokinas SAK gene with primer and terminator sequences

<400> 9
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gatgacgcga gttattttga accaacaggc ccgtatttga tggtaaagt gactggagtt 120
gatggtaaag gaaatgaatt gctatccct cattatgtcg agtttcctat taaacctggg 180
actacactta caaaagaaaa aattgaatac tatgtcgaat gggcattaga tgcgacagca 240
tataaagagt ttagagtagt tgaattagat ccaagcgcaa agatcgaagt cacttattat 300
gataagaata agaaaaaga agaaacgaag tctttcccta taacagaaaa aggttttggt 360
gtcccagatt tatcagagca tattaaaaac cctggattca acttaattac aaaggttggt 420
atagaaaaga aataaaacaa aatagttggt tattatagaa agtaatgtct tgattgaata 480
tgtgtagtga aattatcttt catcaaattc tcattcatgc acgaatgggt ctgccccacc 540
taatcagata ttacgtgact tatggggaga aatcagtttg gataaaagtg gaggatccag 600
tagccg 606

<210> 10
<211> 377
<212> PRT
<213> Staphylococcus aureus

<400> 10

Ser Glu Arg Ser Glu Arg Ser Glu Arg Pro His Glu Ala Ser Pro Leu
1 5 10 15

Tyr Ser Gly Leu Tyr Leu Tyr Ser Thr His Arg Leu Tyr Ser Leu Tyr
20 25 30

Ser Gly Leu Tyr Ala Ser Pro Ala Ser Pro Ala Leu Ala Ser Glu Arg
35 40 45

Thr Tyr Arg Pro His Glu Gly Leu Pro Arg Thr His Arg Gly Leu Tyr
50 55 60

Pro Arg Thr Tyr Arg Leu Glu Met Glu Thr Val Ala Leu Ala Ser Asn
65 70 75 80

Val Ala Leu Thr His Arg Gly Leu Tyr Val Ala Leu Ala Ser Pro Gly
85 90 95

Leu Tyr Leu Tyr Ser Gly Leu Tyr Ala Ser Asn Gly Leu Leu Glu Leu

100

105

110

Glu Ser Glu Arg Pro Arg His Ile Ser Thr Tyr Arg Val Ala Leu Gly
115 120 125

Leu Pro His Glu Pro Arg Ile Leu Glu Leu Tyr Ser Pro Arg Gly Leu
130 135 140

Tyr Thr His Arg Thr His Arg Leu Glu Thr His Arg Leu Tyr Ser Gly
145 150 155 160

Leu Leu Tyr Ser Ile Leu Glu Gly Leu Thr Tyr Arg Thr Tyr Arg Val
165 170 175

Ala Leu Gly Leu Thr Arg Pro Ala Leu Ala Leu Glu Ala Ser Pro Ala
180 185 190

Leu Ala Thr His Arg Ala Leu Ala Thr Tyr Arg Leu Tyr Ser Gly Leu
195 200 205

Pro His Glu Ala Arg Gly Val Ala Leu Val Ala Leu Gly Leu Leu Glu
210 215 220

Ala Leu Ala Pro Arg Ser Glu Arg Ala Leu Ala Leu Tyr Ser Ile Leu
225 230 235 240

Glu Gly Leu Val Ala Leu Thr His Arg Thr Tyr Arg Thr Tyr Arg Ala
245 250 255

Ser Pro Leu Tyr Ser Ala Ser Asn Leu Tyr Ser Leu Tyr Ser Gly Leu
260 265 270

Gly Leu Thr His Arg Thr His Arg Leu Tyr Ser Ser Glu Arg Pro His
275 280 285

Glu Pro Arg Ile Leu Glu Thr His Arg Gly Leu Leu Tyr Ser Gly Leu
290 295 300

Tyr Pro His Glu Val Ala Leu Val Ala Leu Pro Arg Ala Ser Pro Leu
305 310 315 320

Glu Ser Glu Arg Gly Leu His Ile Ser Ile Leu Glu Leu Tyr Ser Ala
325 330 335

Ser Asn Pro Arg Gly Leu Tyr Pro His Glu Ala Ser Asn Leu Glu Ile
340 345 350

Leu Glu Thr His Arg Leu Tyr Ser Val Ala Leu Val Ala Leu Ile Leu
355 360 365

Glu Gly Leu Leu Tyr Ser Leu Tyr Ser
370 375

<210> 11
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> An oligonucleotide PEC-1 for protein expression cassette

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gatcaagctt atcatcgata agcttacagg acgctgggtt aaaagtatatt 50

<210> 12
<211> 55
<212> DNA
<213> Artificial Sequence

<220>
<223> An oligonucleotide PEC-2 for preparing protein expression
cassette

<400> 12
atcttattga cctctcaaaa cttaatccac atcaaaactc aaatactttt aacct 55

<210> 13
<211> 55
<212> DNA
<213> Artificial Sequence

<220>
<223> An oligonucleotide PEC-3 for preparing protein expression
cassette

<400> 13
agaggtcaat aagattataa tatgtgatgc ttcacaattc tgatgtatgg caaaa 55

<210> 14
<211> 50
<212> DNA
<213> Artificial Sequence

<220>

<223> An oligonucleotide PEC-4 for preparing protein expression
cassette

<400> 14

atgaggtcctt ccttaagttc attattatgg ttttgccata catcagaatt

50